

Notice of Allowability

Application No.

10/072,424

Examiner

Matthew D. Matzek

Applicant(s)

KNOWLES ET AL.

Art Unit

1771

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 5/10/2006.
2. ☒ The allowed claim(s) is/are 1-7 and 13-18.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

NORCA TORRES
PRIMARY EXAMINER

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1. Applicant's Terminal Disclaimer dated 5/10/2006 with recently allowed application 10/464,830 obviates the previously applied Double-patenting rejection.

EXAMINER'S AMENDMENT

2. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.
3. Authorization for this examiner's amendment was given in a telephone interview with James Herkenhoff on 5/24/2006.

In the Claims:

Claim 1: A composite material comprising: a base[;],

a first fiber in contact with the base and having a cross sectional diameter of greater than about 3 microns[;],

and a plurality of elongated second fibers having a cross sectional diameter of less than approximately 1 micron;

wherein the plurality of second fibers is predominately in contact with [a] the distal [portion] end of the first fiber.

Claim 2: The composite material of Claim 1, wherein said plurality of elongated second fibers is bonded to [a portion] the distal end of said first fiber.

Claim 3: The composite material of Claim 2, wherein said [portion] end comprises the tips.

Claim 13. A composite material comprising: a base[;],

a first plurality of fibers having first and second ends, said second ends being in contact with said base, and said fibers being predominantly aligned and forming a sheet that extends in a direction substantially parallel to the base fibers[.]; wherein substantially all of said plurality of fibers have a diameter of about 15 microns or less[.]; and a carbon fiber material comprising a collection of carbon fibers located predominantly proximate to said first end of at least some of said first plurality of fibers[.]; said collection of carbon fibers on each end having an overall diameter substantially greater than a diameter of the first end to which they are attached[.]; said carbon fiber material forming a pliable contact surface being substantially parallel with said first end[.]; said pliable contact surface having a higher degree of mechanical resilience than the plurality of fibers in response to application of an external load.

Claim 18. A composite material comprising:

a plurality of fibers having first and second ends[.]; said fibers being predominantly aligned and having a diameter of more than about 3 microns[.]; and a carbon fiber material located predominantly proximate to said first end and comprising an unaligned discontinuous powder of nanofibrils with diameters of about 50-300 nanometers and lengths of about 20 to 80 microns[.]; said carbon fiber material forming a pliable contact surface being substantially parallel with said first end.

Allowable Subject Matter

4. Claim 1-7 and 13-18 are allowed.
5. The following is an examiner's statement of reasons for allowance: the prior art of record fails to teach a first fiber in contact with a base having a cross-sectional diameter of greater than 3 microns and having a plurality of elongated second fibers having a cross-sectional diameter of less than 1 micron, a collection of carbon fibers having an overall diameter larger than the diameter of the first fiber and said plurality being located at the distal end of the first fiber. The distal end as supported by the instant specification is the pliable contact surface being substantially parallel with the surface that is in contact with said base.
6. US Patents 6,872,439 and 6,737,160 do not serve as interferable subject matter. Patent 6,737,160 teaches the use of protrusions that have different diameters than those of the instantly claimed article and patent 6,872,439 teaches an adhesive force that is not claimed by the instant article.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew D. Matzek whose telephone number is (571) 272-2423. The examiner can normally be reached on 8:30 am - 5:00 pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on (571) 272-1478. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


NORCA TORRES
PRIMARY EXAMINER

mdm

